

**Method of Cleaning an Inter-Level Dielectric
Interconnect**

5

ABSTRACT

10 A method for cleaning a semiconductor interconnect
structure formed in an organic ILD using an anisotropic
organic dielectric etch in combination with a sputter
clean process. Organic material displaced from the
sidewalls to the bottom of the structure by the sputter
clean is removed by the ion enhanced organic etch.
Interconnect resistance shift is reduced and reliability
of the interconnect structure is improved by removing
15 contaminates at the interface of the via/contact, and by
increasing adhesion of the liner or plug to the
underlying conductive layer.

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